

THE POLITICAL GEOGRAPHY OF ENDURING RIVALRIES

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Introduction

Research on the democratic peace starts with a fact: democracies almost never fight wars with one another. Research on enduring rivalries – competitions between the same pairs of states (e.g., India-Pakistan) over a long period of time – begins with a contrasting observation: a small proportion of dyads accounts for a very large percentage of all militarized disputes and wars. A series of results (originally from Goertz and Diehl, 1992a, and updated in Diehl and Goertz, 2000) indicate that enduring rivalries (only 5.4% of all conflictual dyads and an even lower percentage of all possible dyads) account for almost half of all militarized disputes and wars over the past 200 years. Furthermore, enduring rivalries account for a disproportionate fraction of other important interactions including peaceful and violent territorial changes as well as low-level and violent international crises (Hensel, 1998).

Even though scholars have been quick to discover and document the dangers associated with enduring rivalries, they have been less adept at pinpointing the underlying sources of that danger. Most studies of rivalries (see Goertz and Diehl, 2000 for a review) focus on how rivalries evolve or end, with comparatively less attention to what factors promote their development or increase their severity. Paralleling rivalry research has been a research program exploring the interconnection of territory and conflict. Territorial disputes have been identified as the most common sources of interstate war in recent history (Vasquez, 1993; Holsti, 1991). Moreover, conflicts over territory – as opposed to conflicts over other issues – are more likely to recur and to do so in a shorter span of time (Hensel, 1994; Werner, 1999). Similarly, there are various studies that attempt to link geographic proximity to interstate conflict and its diffusion (see Diehl, 1991 and Most, Starr, and Siverson, 1989 for reviews of these respective literatures).

Although these literatures have existed side by side, there has been little intermingling; that is, we know little about the relationship between the phenomena of enduring rivalries and political geography. In this study, we undertake the first systematic exploration of the political geography of enduring rivalries. In doing so, we focus on two different geographic influences on enduring rivalries: as a *source* of conflict and as a *facilitating condition* for conflict (Diehl, 1991).

The former focuses on conflicts that are driven by or made more severe by the issues over which states are fighting, in this case fighting over territorial control. Given the recurrent character of territorial conflicts, one might expect that at least some enduring rivalries are driven by disputes over territory. Pairs of countries engaged in enduring rivalries with a territorial dimension are potentially the most conflictual pairs: by definition their dispute participation is frequent but it is also affected by an issue that is highly explosive. Yet, whether this is empirically the case and, if it is, to what extent is unknown. In this study, we attempt to shed some light on the link between enduring rivalry and territorial conflict by

asking: *what role do territorial issues play in enduring rivalries?* We answer the main question by pursuing specific sub-questions, considering whether enduring rivalries are more likely to involve territorial disputes than other conflicts, whether territorial disputes make rivalries experience more severe or frequent conflict, and whether territorial disputes make the evolution of a rivalry into an enduring one more likely.

Another geographic component involves proximity as a facilitating condition for rivalry development and escalation. The focus here is not on the contentious issues that make rivalries, but rather on how geographic proximity may promote more frequent and hostile interactions. Specifically, we ask: *what role does geographic contiguity play in enduring rivalries?* Similar to our focus on territorial issues, we look at how contiguity influences rivalries, most notably in their severity, conflict frequency, and development.

In terms of the enduring rivalry research, this study is important in part because it helps us understand the bases of enduring rivalries. Some factors are making enduring rivalries persist and be more severe on average than lesser conflicts. Are geographic influences some of these factors? We chip away at this larger question and find out whether rivalries are influenced by proximity (i.e. contiguity), the single issue of territory, or perhaps whether geography plays only a minor role in the life of a typical rivalry. Finding a connection between rivalry and geography would suggest the need for bringing the now disparate strands of territory and rivalry research closer together. In terms of policy making, the connection would call for application of conflict management techniques used to deal with territorial problems – such as arbitration (Simmons, 1999), fair settlements (Brams and Togman, 1999), and perhaps even territorial transfers (Tir, 1999).

Second, we advance the rivalry research agenda by considering when and why territorial enduring rivalries are especially dangerous. Are rivals' militarized conflicts more severe, more frequent, and more likely to develop into a serious (i.e. proto- or enduring) rivalry when territorial issues are at stake or geographic proximity is a factor? If this is the case, we would conclude that an even smaller number of dyads (i.e. enduring rivals conditioned by political geography) is responsible for generating much international conflict. From the policy-making standpoint, the findings would help us identify dyads upon which conflict management efforts should be focused, although they might, in fact, be more resistant to ameliorative efforts.

In terms of broader international conflict research, confirmatory findings in this study would provide another piece of evidence in favor of the issue-based approach to the study of international conflict (Diehl, 1992; Hensel, 1996a). More specifically, territorial issues deserve special attention and one could even argue that countries involved in enduring rivalries or lesser conflicts over territory have a

fundamentally different conflictual relationship with one another than countries fighting over other issues. In short, putting all conflictual issues into the same mix may be inappropriate.

We begin by providing a brief overview of past scholarly research on geography and militarized conflict, seeking to make a *prima facie* case for exploring the political geography of enduring rivalries. We then move to consider the role of territorial issues and geographic proximity in rivalries through a series of comparative static analyses. We conclude our empirical analyses with analyses of rivalry development and average rivalry severity, looking at the relative effects of territorial issues, proximity, and other relevant factors.

Previous Research

Over the last two decades, there has developed an increasing consensus on the notion that geography is an essential factor in making conflicts more severe and more likely to reoccur.¹ There is less consensus, however, over the explanations associated with the importance of geography. Further complicating this is the limited application, thus far, of geographic factors in the analysis of enduring rivalries.

There is clear and compelling evidence that most militarized conflict over the past several centuries has occurred between neighboring states. Wallensteen (1981) and Diehl (1985) demonstrated that among major powers contiguity was significantly associated with the onset of militarized conflict and was also associated with the escalation of that conflict to war. Extending that to all states, both Gochman (1991) and Bremer (1992) produced even more impressive findings. Gochman reports that almost 2/3 of all militarized confrontations occur between contiguous states. Bremer finds geographic contiguity to be the single most important factor increasing the probability of war between two states. Numerous other studies reach similar or supporting conclusions (see Vasquez, 1995 for an overview).

Although the findings on geographic contiguity are stark and significant, it is not entirely clear what they signify. Is the strong association between contiguity and war a reflection that territorial disputes are more salient to decision makers and therefore more dangerous than disagreements over other issues? Or does contiguity indicate merely that there is greater opportunity for interactions between states who border each other, and therefore one might expect more hostile – as well as more peaceful – interactions between neighbors? Might it also be the contiguity represents a proximity effect, whereby most states are only able to project military power to neighboring areas and therefore are incapable of warfare with other than contiguous states (note that the “loss of strength gradient” is dramatic for most

¹ We are concerned here with geography as a general causal factor in the incidence and severity of conflict. There is an abundant literature that focuses exclusively on territorial disputes (e.g., Huth, 1996), but such literature takes territorial conflict as a given and therefore does not provide a basis for assessing the relative importance of geography in understanding enduring rivalries. Accordingly, we largely ignore that literature.

states outside of their region; see Boulding, 1962). In a series of studies, Vasquez (1993; 1995) has attempted to sort out which of these contiguity effects is really present: territoriality, opportunity, or proximity. Vasquez (1993) initially argued that the contiguity-war relationship was a reflection of territorial disputes and not incidental to opportunity or proximity effects. His steps to war model includes unresolved territorial claims as an essential component; that is, states that have settled all outstanding border and other territorial disputes are unlikely to go to war, except in a contagion process in which existing war “spreads” to them. In a follow-up study, Vasquez (1995) systematically looks at the logical structure and corollaries of the three competing explanations. Using scientific standards and extant empirical findings, he argues that the territorial explanation is compelling, and therefore territorial disputes are much more dangerous than other kinds of interstate confrontations.

Vasquez’s initial analyses were not based on new empirical studies and there was some doubt as to whether the three explanations could be sorted out empirically. Nevertheless, a series of subsequent empirical studies is strongly consistent with Vasquez’s assertions. Kocs (1995) controlled for contiguity and discovered that war was about 40 times more likely if neighbors were involved in a never-resolved territorial dispute versus when they were not. Never resolved territorial disputes did not account for all wars, but they were a significant component. Vasquez and Henehan (1998) demonstrate with empirical data over the 1816-1992 period that territorial disputes have a higher probability of going to war than other kinds of disputes, and such disputes account for a majority of war outbreaks. The results they presents generally hold across different time periods, lengths of rivalry, and different power levels (e.g., major, minor) of states.

Consistent with the notion that territorial disputes are more likely to escalate to war are findings that the bargaining behavior of states in territorial disputes is more severe or coercive. Hensel (1996a) looks at over 2,000 militarized disputes since 1816 and assesses the relative behavior of states when territorial issues are involved versus when they are not. He notes that territory-based disputes are generally more severe and more likely to prompt violent responses from the target of the initial militarized action (whereas many other disputes end quickly when the target states do not respond with military actions and/or launch diplomatic initiatives). Hensel finds that territorial conflict is more likely to recur and to do so in a shorter period of time than disputes over non-territorial issues. Senese (1996) looks at the same militarized disputes as Hensel, but there are several unique elements to his analysis. Senese confirms Hensel’s findings that territorial disputes are more severe overall than other conflicts, and he also notes that geographic contiguity contributes to greater severity (as it may be easier to project military force close to home). Yet, he finds no strong evidence that geographic concerns lead to the escalation of disputes. That is, geography is important in influencing the probability of militarized conflict arising and may even affect the severity of the initial actions in the conflict, but other processes

(involving, for example, democratic regimes) determine whether states will choose a progressively more hostile series of actions during a dispute.

A final set of research concerns related to territorial disputes are the roles that territory can play in the termination or resolution of militarized conflict. This consideration is rarely given much attention in the international conflict literature. Yet one of the keys to understanding the recurrence of conflict, and therefore enduring rivalries, is to determine how that cycle of conflict can be broken. In his survey of alliances, Gibler (1996) has discovered that a significant portion of peaceful alliances contained territorial settlement agreements; that is, the agreements resolved long-standing territorial claims between states. Critically, he reports that alliances of this variety are less war prone than other alliances. In effect, the territorial settlement treaties removed one of the contentious issues between states and ushered in an era of peaceful relations (this is similar to the argument made by Vasquez). Thus, territorial settlement treaties may be one mechanism for ending war and rivalries between states, and indeed Huth (1996b) reports that borders that are well-defined by a legal settlement and fully demarcated are unlikely to be disputed. Another potential mechanism for settling territorial disputes involves the re-distribution of land between the disputants. Tir (1999) finds that the disputants experience a significantly lower frequency of conflict onset after – as opposed to before – the territorial transfer takes place. Under certain circumstances, the frequency drops to a level that can be considered normal.

These findings strongly suggest that geography is significantly associated with the onset and escalation of militarized conflict between states. There is some discord over whether this relationship is driven by the proximity of disputants or whether it is disagreements over territorial control that are driving this relationship. Yet, the proximity and territorial issue effects are not mutually exclusive or competing explanations; both can have independent effects on conflict initiation and escalation. Furthermore, one might suspect that territorial disputes are more likely between neighbors (see Huth, 1996b) than other pairs of states, making the effects not independent of one another. Regardless, past research is suggestive that geographic factors may hold some clue to the development of enduring rivalries. This is reinforced by the limited research on geographic factors and rivalries.

Territorial issues are thought to be a key element in the origins of enduring rivalries. In a case study of the Pacific theatre of World War II, Vasquez (1998) notes the importance of territorial issues as a basis for enduring rivalries. Rule (1999) also finds that the competition over territory (along with ideology) was an important element in the origins of the France-Spain rivalry of the late 15th century. Although there have been a large number of ongoing claims over territory, not all of these have resulted in militarized disputes or the development of long-standing rivalries. Huth (1996a) looks at the role of territorial claims since 1950 in the origins of enduring rivalries. Huth uses a modified realist model, which includes both domestic and international political factors, to explain how states become involved in

enduring rivalries over territory (he does not seek to account for all enduring rivalries). Importantly, he notes that domestic concerns, especially ethnic and linguistic ties between one's own population and those living in the disputed territory are significantly associated with the recurrence of militarized conflict. Huth's work demonstrates that not all territorial conflicts evolve into enduring rivalries, but he cannot discern whether territorial factors are prerequisites for enduring rivalry development; that is, territorial factors are not sufficient conditions for rivalry development, but they may be necessary ones.

Large N analyses of all rivalries (including enduring and lesser rivalries) also hint at the importance of geographic factors, although they are frequently included as control variables without much theoretical import. Hensel (1996b) finds that the presence of disputed territory is one of the strongest influences in generating recurring militarized conflict, and that such issues promote longer and more severe rivalries at every phase of rivalry development. Similar findings appear in Sowers and Hensel (1997) and Hensel and Diehl (1999). The only findings on geography and rivalries, among an admittedly limited set, that does not find a significant effect from territorial concerns the linkage or diffusion of geographically proximate rivalries. Diehl and Goertz (2000) hypothesized that geographic proximity would have a diffusion or reinforcing effect on militarized conflict. Yet, they found that a rivalry that was geographically contiguous with another enduring rivalry (or rivalries) was no more severe, volatile, or prone to escalation than other rivalries.

Some General Empirical Expectations

Drawing from these findings, we will explore two possibilities for the influence of geography on enduring rivalries.² The first is that enduring rivalries are influenced by disputes over territorial control. From prior theoretical and empirical research we know that disputes over land are more dangerous than disputes over issues such as economic policy or ideology. Disputes over other issues (e.g., economic resources) are presumably resolved more easily and at lower levels of hostility than those over territorial issues. The risk and severity of territorial issues may be traced to several sources. One might argue that territorial issues, on average, are more likely to be tied security concerns and are therefore more salient than other issues; control over a given piece of territory (e.g., Golan Heights) may provide protection against attack from a neighbor. Another explanation is that territorial issues may be considered largely zero-sum (i.e., only one state can have sovereignty over a given piece of land) and therefore the bases for compromise and tradeoffs are fewer than over other issues. A different school of thought emphasizes the

² We generally do not explore a third possibility that policy decisions whose consequences are closer in physical space are more salient than those in a far distant setting are more conflict prone. First, such an explanation is empirically almost impossible to disentangle from an explanation based on a loss of strength gradient (see below). Second, arguing that proximate events are more salient begs the question of why, as this tends to be an

land's "symbolic" (Newman, 1999) or "relational"(Goertz and Diehl, 1992b) value, in which territorial control is intertwined with historical, religious, and cultural values. These are essentially indivisible values for which compromise is difficult or impossible (e.g., dividing Jerusalem).

Relating these ideas to rivalries, we expect the following. First, enduring rivalries are likely to be driven by territorial disputes, even though we do not expect them to be *exclusively* driven by territorial disputes. Territorial disputes are highly salient and difficult to resolve. The salience of these disputes increases the chances that the participants of the disputes will use violence in pursuit of their interests. Moreover, the difficulty by which territorial disputes are resolved leads us to believe that armed confrontations will take place over long periods of time. Hence, in territorial disputes we have two essential ingredients of enduring rivalry: repeated confrontations and longevity. Similarly, armed confrontations over territory are more likely to develop into enduring rivalries than confrontations over non-territorial issues. The logic is similar, in that the salience and intractability of disputes over land distribution are expected to signal that the initial confrontation is not an end in itself but rather just a beginning of a prolonged conflictual relationship. The third expectation states that rivalries focused on territorial issues experience higher levels of severity than non-territorial rivalries. The salience of disputed territory makes countries' leaders more willing to expend material and human resources on acquiring/protecting the land than on an issue such as lowering trade barriers. Hence, the greater the territorial component of the rivalry, the greater will be its average severity. Finally, we expect that rivalries focused on territorial concerns will experience disputes more frequently than rivalries dealing with non-territorial issues. The importance of the disputed land to the populace (via a vehicle such as nationalism) makes it politically expedient for the leaders to mount a militarized effort against the foe. The availability and the salience of the territorial issue make it one that political leaders can repeatedly exploit for political gain. Indeed, political benefits from frequent resort to conflict over a territorial issue may not experience diminishing returns; returns may even increase depending on the territory and political context.

The second possibility is that geographic contiguity functions as a facilitating condition for enduring rivalries. In this conception, enduring rivalries would arise primarily between neighbors. One rationale behind this would be that neighbors have more interaction opportunities (both hostile and friendly) than other pairs of states. Yet this simple explanation provides little theoretical reason why enduring rivalries occur and assume that rivalry development is akin to some random process.³ More

underdeveloped explanation and one very sensitive to differences across issue areas. In effect then, geography is really only a surrogate indicator of another non-geographic factor correlated with conflict severity and escalation.

³ A similar argument is made by Gartzke and Simon (1999). Nevertheless, their analysis only looks at enduring rivalries and does not consider lesser rivalries as well, a more valid test; indeed, Cioffi-Revilla's (1998) results indicate that looking only at enduring rivalries can produce misleading results and incorrect conclusions.

compelling is an explanation based on proximity and the ease with which military force can be projected across space. The “loss of strength gradient” articulated by Boulding (1962) stipulates that state strength weakens as the site of power projection get farther away from the home base. Thus, one might expect that most states could not carry on a militarized confrontations, much less repeated ones, with any state but those in their immediate geographic region. States could not credibly threaten or use military force against distant states. The possible exceptions may be major power states, which are still subject to the loss of strength but less crippled by it. The proximity effect on enduring rivalries is less interesting theoretically than one based on territorial issues. Proximity only helps us understand the set of possible enduring rivalries, but clearly only a small subset become long-standing militarized competitions and geographic proximity has little to tell us about that selection.

Integrating these ideas into the context of rivalries, we expect that contiguity is a factor in at least some – but certainly not all – rivalries. Although many countries can and do have bitter and protracted disagreements over policy, only those that are capable of militarized confrontations can develop a rivalry. Given that most of countries are too weak to project their force beyond their immediate neighbors, we expect that rivalries – and especially the longer-lasting variety of rivalries – will most commonly take place between neighbors. Second, we expect contiguity to play a role in rivalry development. Weak, distant countries may be able to project military force at great distances on occasion, but it is much more difficult for them to sustain such efforts over long periods of time.⁴ Third, we expect that proximity has an impact on rivalry severity. Because of the loss of strength gradient, countries are able to deliver more of their troops and weaponry to battlefields that are closer to home. Thus, clashes in far-away places can be expected to involve fewer troops and weapons and consequently their average severity will also be lower than when confrontations are taking place between neighboring countries. Of course, this logic assumes that the *willingness* to use troops and weapons is invariant. Finally, we expect to see that contiguous rivalries experience disputes more frequently than non-contiguous rivalries. Assuming constant willingness to fight, the rivals who are close to one another will be able to fight more often simply because of the ease by which they can engage one another in a battle.

More importantly, Gartzke and Simon’s analysis presumes that disputes are independent of one another, and therefore there should be little connection between the characteristics of one dispute and the likelihood of another dispute arising between the same states. Yet empirical results clearly indicate the dispute occurrences are related over time, specifically that the outcomes of one dispute influence the likelihood that future disputes and enduring rivalries will occur (Maoz, 1984; Hensel, 1998, Werner, 1999). Such findings are also convergent with other studies that demonstrate non-random patterns of rivalry dynamics and characteristics. For example, there is a pattern of increasing hostility in more enduring rivalries (Goertz and Diehl, 1992a; Diehl and Goertz, 2000); a random events model would predict no difference in conflict patterns across different kinds of rivalries.

⁴ Obviously, the situation is different for major powers and we control for major power status in our test of the rivalry development proposition.

Even though we provide these rudimentary explanations, our main purpose is to make a *prima facie* case for the connection between geography and rivalries rather than develop a full and coherent theoretical explanation of the connection. We hope that by doing so, we can demonstrate that such theoretical considerations are worth pursuing. With this in mind, we move to an empirical examination of geographic factors and rivalries over the 1816-1992 period.

Research Design

To understand the role of geography in enduring rivalries, we explore not only enduring rivalries, but lesser order rivalries as well (what have been referred to as proto and isolated rivalries). The latter provide necessary control groups to determine the relative importance of geographic factors in the most dangerous as well as other forms of militarized conflict. Goertz and Diehl (1995) provide an extensive discussion of this logic. We use the population of international rivalries provided by Diehl and Goertz (2000).⁵ Their data include 1166 militarized rivalries over the period 1816-1992, broken down into 63 enduring rivalries, 223 “proto” rivalries, and 880 isolated rivalries. The rivalry data are constructed from the Correlates of War Project Militarized Dispute (MID) data set (Jones, Bremer, and Singer, 1996); all rivalries begin with at least one militarized dispute. Operationally, isolated rivalries are those that experience two or fewer disputes which are, at most, 10 years apart. Enduring rivalries are those that experience at least 6 disputes and do so in a time period lasting at least 20 years, with no more than 10 to 15 years between the disputes.⁶ Those rivalries not fitting in either category comprise the middle of the rivalry continuum form an intermediate stage of conflict, and are therefore termed proto-rivalries.

Having identified a population of different kinds of rivalries, we now seek to identify geographic dimensions of their confrontations. For the focus on territorial issues, we look at the issues over which rivals fought in each of their disputes. The variable is based on the MID data set coding of “revision type.” We regard the dispute as a territorial one if at least one of the states in the dyadic dispute was seeking a territorial revision. The contiguity variable is taken from the Correlates of War contiguity data set (Gochman, 1991; as reported by Bennett and Stam, 1999). States are considered contiguous if they share a land border.⁷

⁵ This data set is publicly available at <http://www.pol.uiuc.edu/faculty/diehl.html>

⁶ Disputes that occur within 10-15 years of each other are considered to be part of the “same rivalry.” A dispute is considered part of the same rivalry if it involves the same two states and occurs within 11 years of the first dispute of the sequence, 12 years after the second dispute, up to fifteen years after the fifth dispute.

⁷ The following four rivalries were dropped from analyses involving contiguity because their contiguity status changes during the life of the rivalry: (1) Rivalry # 694 (Germany-Russia/Soviet Union, 1914-20) whose border situation changes because of the Soviet losses of land in World War I; (2) Rivalry #932 (Turkey-Cyprus, 1965-88) whose contiguity status changes in 1974 because of the partial occupation of the island by Turkey; (3) Rivalry #1177 (Iraq-Egypt, 1959-1962) whose contiguity status changes because of the dissolution of the United

The first set of analyses is largely descriptive. We consider several relationships between territorial issues and contiguity, on one hand, and various aspects of rivalry, on the other. First, we focus simply on the degree to which territorial issues and geographic contiguity are associated with different kinds of rivalry. Second, we study the role of geographic factors in rivalry severity. To indicate rivalry severity, we look at the mean of the severity scores of individual disputes within a given rivalry. The severity of an individual dispute is taken directly from the rivalry list and is measured on a 0-200 scale based on the “level of hostility” exhibited by both rivals in the dispute and the number of fatalities in the confrontation (Diehl and Goertz, 2000). Third, we consider the frequency of dispute occurrence; this is indicated by the number of disputes in the rivalry divided by its duration in years.

In the second, causal set of analyses, we attempt to assess the impact of territorial issues and contiguity more precisely. Specifically, their effect on advanced rivalry development and enduring rivalry severity, controlling for a series of other relevant factors, are explored. In the analysis of rivalry development, our analysis focuses on the initial dispute in each rivalry sequence. This set of initial conflicts forms the population of all possible rivalries, of which only some become proto or enduring. We then assess, what factors are causing some conflicts to become proto and enduring rivalries, while others remain isolated (for a justification of this approach, see Stinnett and Diehl, 1999). Here we look to whether rivalry development is associated with territorial issues in the dispute and the contiguity (or lack thereof) of the participants in the original dispute. Mirroring the analysis in Stinnett and Diehl (1999), we also control for the following other variables: stalemate outcomes, whether the parties are original disputants or joined after the onset, recent national independence by one of the rivals, the major power status of the two states, and regime type.⁸ Beyond providing a better-specified statistical model, this allows us to compare the relative importance of geographic factors vis-à-vis other influences on rivalry development.

For stalemates, the outcome variable from the MID data set (Jones, Bremer, and Singer, 1996) is re-coded to 1 if the dispute ended in a stalemate between the participants, and zero otherwise. To indicate dispute joiners, a dichotomous variable is coded 1 if one or both of the states were not original participants in the dispute according to the MID data, but rather joined the dispute sometime after its onset. To indicate major power status, we rely on the classification of Small and Singer (1982), who identify nine states as major powers for all or some of the 1816-1992 period of study. This variable is coded 1 if both participants are major powers, and zero otherwise. National independence is taken from

Arab Republic, a union between Egypt and Syria; and (4) Rivalry #1292 (Cambodia-North Vietnam, 1969-79) whose contiguity status changes because of the Vietnamese unification in 1975.

⁸ Initial analyses also included other control variables, but those that were insignificant were dropped from the final equation, reported in Tables 6 and 7. These variables included dispute severity, linkage to an extant enduring rivalry, the power distribution, and political shocks.

the territorial change data set (Tir, Shaefer, Diehl and Goertz; 1998), which contains an indicator for cases of national independence. Each case is coded as 1 if that case occurs during or up to ten years after the national independence of one or more of the rival states and 0 otherwise. This ten-year lag represents the sustained influence that the event can have in subsequent years (see Diehl and Goertz, 2000).

Finally, classifications of regime type and democracy level are based on Polity III data (Jagers and Gurr, 1996). The Polity III data set includes indices of institutionalized democracy and autocracy that each range in value from zero to ten, based on five specific polity characteristics: competitiveness and regulation of political participation, competitiveness and openness of executive recruitment, and constraints on the chief executive. We use Jagers and Gurr's (1996) suggested "Democ – Autoc" indicator, which subtracts each state's autocracy score from its democracy score, producing a regime score that ranges from positive ten (highly democratic, no authoritarian characteristics) to negative ten (highly authoritarian, no democratic characteristics). To avoid negative values and simplify interpretation, this score was then scaled from 1 to 21 by adding 11. Following the approach of Oneal and Russett (1997), for each dyad we use the lower regime score of the two states as an indicator of dyadic regime type. This is based on the logic that the norms of the least democratic state, the weak link or least common denominator, will dominate the dyadic interactions. As this indicator approaches 21, the dyad becomes more democratic.

For the analysis focusing on rivalry severity, we define rivalry severity as the mean severity score (measured above) for the disputes in a rivalry. We use many of the same control variables as noted above to understand the relative impact of geographic factors. Unlike the previous analysis, however, we are looking to the characteristics of the rivalry as a whole to predict its average severity – rather than focusing on the characteristics of the first dispute in the rivalry sequence. This results in some slight adjustments in a few of our variables. Contiguity remains the same, but territorial issues is now an ordered categorical variable reflecting the percent of disputes in the rivalry that had a territorial component (non-territorial, partly territorial, and predominantly territorial). The major power and recent independence control variables are the same as in the rivalry development analysis. In contrast, whether the dyad is coherently democratic and whether it has major power status are both now measured at the midpoint of the rivalry rather than at the time of the first dispute.

Descriptive Results

Territory as a Contentious Issue

In this section, we discuss the role of territory as an issue over which countries fight. Table 1 reports how militarized disputes over territory are distributed among the three types of rivalry.

(Table 1 about here)

The top portion of Table 1 uses rivalry as the unit of analysis. In this context, each rivalry is classified according to (1) its type and (2) whether it contains *at least* one militarized dispute fought over territory. When all rivalries are considered, we see that only about 29% of them have at least one territorial dispute. The percentage of isolated rivalries with territorial disputes is lower (about 21%), while a notably higher percentage (over 43%) of proto-rivalries contains at least one territorial dispute. The greatest disparity in percentages comes from considering enduring rivalries; 81% of them have at least one territorial dispute. This means that only 19% of enduring rivalries are fought exclusively over issues other than territory, while substantially greater percentage of isolated and proto-rivalries are “aterritorial.” These results suggest that enduring rivalries are more likely to be driven by territorial issues than are other types of rivalries. Yet, we also find that a notably greater portion of proto-rivalries is driven by territorial issues than is the case for isolated rivalries. One might argue that these results are solely or largely a function of opportunity; that is, there are many more disputes in enduring rivalries than isolated ones (true by definition) and therefore at least one dispute in an enduring rivalry is bound to be territorially-based. To test for this possibility, we shift our unit of analysis from the rivalry to the dispute.

The bottom portion of Table 1 uses a dispute as the unit of analysis. This means that for each dispute we note whether it was fought over territorial versus some other issues. The results show that overall only about 26% of militarized disputes are fought over territory. In the context of enduring rivalries, this percentage climbs to about 38%, while in the other two types of rivalry it drops to around 20%. The findings reconfirm that there is a strong connection between territorial conflict and enduring rivalry. Disputes in enduring rivals are twice as likely to be over territory than are confrontations in proto or isolated rivals. Enduring rivalries are therefore more likely to be influenced by territorial issues than are other types of rivalries. Nevertheless, we must note that over half (60%) of the disputes in enduring rivalries are over issues other than territory, indicating the such rivalries are not driven exclusively or even primarily by disputes over territory.

(Table 2 about here)

We have established that territorial issues are an important component of some advanced rivalries. From Table 1 we know that 81% of enduring and almost 44% of proto-rivalries experience territorial conflict at some time during their existence. Yet, we do not know the extent to which other enduring and proto-rivalries are driven by territorial issues; that is, all conflict in those rivalries could be territorial or only one of the disputes could be fought over land. Table 2 addresses this concern. Enduring and proto-rivalries are divided into three categories, according to the portion of militarized disputes that are fought over land: non-territorial (0%), partly territorial (0-50% exclusive), and predominantly territorial (50% or greater). We find that a majority (i.e. 54%) of enduring and slightly more than a quarter (i.e. 27%) of proto-rivalries can be considered partly territorial. These partly-

territorial rivalries experience some territorial conflict, but a majority of the relevant disputes are fought over other issues. Slightly more than a quarter (i.e. 27%) of enduring and about 17% of proto-rivalries are fought predominantly over territorial issues. In combination, just under half of enduring and proto-rivalries do not experience any conflict over land, about a third are partly territorial, and just under 20% of them are fought predominantly over territorial issues. The findings are suggestive, however, that the territorial component is a key element of enduring rivalries. Few enduring rivalries, in contrast to proto-rivalries, develop without some impetus from militarized territorial confrontations.

After addressing the issue of how territorial conflicts are distributed across enduring and proto-rivalries, we shift our concern to whether the presence of territorial conflict within a rivalry affects how dangerous it becomes. More specifically, we look at the impact on average rivalry severity and dispute frequency.⁹ We again focus on enduring and proto-rivalries, not only because these are the most likely to experience territorial conflict, but also because these rivalries have multiple dispute observations on which to base our conclusions about severity and frequency.

(Table 3 about here)

In Table 3 (Part A), we find that the greater the percentage of territorial conflicts within a rivalry, the more severe that rivalry's score is likely to be. In other words, the more territorial the rivalry, the more severe it is on average. Predominantly territorial rivalries include confrontations that are 30% more severe than those in non-territorial rivalries. A more detailed analysis revealed that it is precisely the presence of more territorial disputes in those rivalries that makes them more severe. Individual territorial disputes are significantly more severe than non-territorial disputes; this alone (not an interaction effect of some other causes) makes territorially-based rivalries more severe, and the results are consistent across proto and enduring rivalries. This finding converges with those of Hensel (1996a) and Senese (1996), who report, to varying degrees that territorial conflicts are more severe than are conflicts fought over other issues.

In Part B of Table 3, we consider the impact of territorial issues on dispute frequency; because the results are not uniform across rivalry types, we stratify the analysis by proto and enduring rivalries. As we anticipated, the time density of disputes in enduring rivalries increases significantly with the greater proportion of territorial disputes in those rivalries; dispute frequency is 75% greater in predominantly territorial enduring rivalries as compared to enduring rivalries that do not involve territorial issues. This is consistent with Hensel (1996), who found that territorial disputes are more likely to be followed by another confrontation, although he did not directly address time-density issues. Somewhat surprisingly,

⁹ We do not look at the impact of territorial issues on the length of rivalries given that duration is one of the operational criteria for distinguishing between different kinds of rivalries and given that a large percentage of enduring rivalry cases are right-censored.

dispute frequency actually declines slightly – though not significantly – in proto-rivalries as rivalries become more territorially based. We do not necessarily have a coherent explanation for this effect. Dispute frequency in proto-rivalries is also greater, but this is largely a function of the rivalry definitions in which longer duration (likely to produce lower dispute frequencies) is one of the criteria used to distinguish enduring from proto-rivalries.

In sum, the findings in this sub-section show that enduring and proto-rivalries are substantially more likely to be driven by territorial issues than are isolated conflicts or rivalries. Despite this, a majority of enduring and proto-rivalries are not predominantly territorial, that is most of these rivalries represent a mix of territorial and other issues. By dividing the two types of rivalries according to the presence of territorial conflict within each rivalry, we were able to assess whether territorial rivalries are more dangerous than their non-territorial counterparts. Specifically, we found that territorial rivalries were more dangerous, in the sense that they have higher average severity levels and that territorial enduring rivalries experience conflict more frequently.

Geography as a Facilitator of Rivalry

In addition to considering territory as an issue over which rivals fight one another, we are also interested in whether territorial proximity facilitates recurrent conflict in the form of rivalry. We start with the breakdown of rivalry types according to whether the rivals are contiguous by land. Table 4 shows that just over quarter of all rivalries take place in the context of contiguous rivals. This means that contiguity is not a facilitating condition in about three-quarters of all rivalries and, moreover, that rivalries, in general, are not primarily artifacts of opportunity. Nevertheless, as we consider the three types of rivalry, we note a steady increase in the percentage of contiguous rivalries, from about 23% for isolated to over 58% of enduring rivalries. This breakdown suggests that while territorial opportunity plays a minor role in the development of militarized conflict overall, it does contribute substantially to the life of proto- and, especially, enduring rivalries. Over half of enduring rivalries are rivalries of opportunity, *ceteris paribus*.

(Table 4 about here)

Next we consider whether territorial opportunity makes enduring and proto-rivalries more dangerous. We chose these two types of rivalries because they are driven by territorial opportunity to a greater degree than are their isolated counterparts. We conduct analyses similar to the ones above by considering average rivalry severity and dispute frequency. The findings reported in Table 5 follow patterns similar to those in Table 3. First, we find that contiguous rivalries are significantly more severe,

roughly 17% more, than non-contiguous rivalries.¹⁰ Assuming a similar issue of controversy across contiguous and non-contiguous rivalries, territorial proximity may facilitate both an easier transport of means of destruction – which is then employed with the consequence of producing more casualties – and make the issue more salient as it literally hits closer to home.

(Table 5 about here)

Dispute frequency (Table 5, Part B) follows a pattern somewhat similar to the one in Table 3. Contiguous proto rivalries experience lower dispute frequency than do non-contiguous rivalries, with the opposite result for enduring rivalries. Nevertheless, neither of these trends is substantively large and neither difference is statistically significant. All things being equal, we would expect countries closer to one another to fight more frequently than countries that are far apart. Issue salience and relative ease of confrontation would seem to make frequent confrontations more likely in contiguous rivalries. Geographic proximity makes the existence of a rivalry more likely, but apparently has little impact on temporal configuration of subsequent conflicts.

In sum, the initial territory-as-opportunity analyses show that most rivalries are not driven by this factor. When we consider only the more serious repeat conflicts (i.e. enduring and proto-rivalries), however, territorial opportunity begins to play a more significant role. Territorial proximity also makes rivalries more dangerous in the sense that contiguous rivalries are more severe; however, contiguity has little impact on dispute frequency.

These initial analyses are informative but they fail to account for the possible simultaneous effect of territory-as-a-contentious-issue and territory-as-opportunity. It is highly likely that both factors play a role in the life of a rivalry. More specifically, territorial contiguity not only facilitates conflict in the sense that it makes it easier for potential rivals to fight, but it can also contribute a related issue to fight over. Territorial disputes and associated conflicts commonly take place between neighbors (Huth, 1996b). In short, we have to include both aspects of territory in further analyses and our initial results suggest that both dimensions of territoriality (issue and opportunity) matter.

Causal Results

Rivalry Development

Next, we test the proposition that, among other influences, territorial factors have an impact on whether a dispute between two countries evolves into a proto- or enduring rivalry. Stinnett and Diehl (1999) conduct a similar analysis, but with a broader agenda of identifying all – and not just territorial – determinants of rivalry development. We first replicate their final model, which shows that both

¹⁰ With respect to the relationship between contiguity and severity, the same basic pattern holds for proto- and enduring rivalries individually.

territorial issues and proximity have independent (i.e. additive) impacts on the prospects that a dispute grows into a proto- or enduring rivalry (see Table 6, Model 1).

(Table 6 about here)

Model 1 is statistically significant, as are all of the individual variables. We refer the reader to the Stinnett and Diehl (1999) project for the discussion of variables that we consider as controls and focus here on the impact of territory-related factors. The results for the territory variables confirm our expectations; both the territorial dispute and contiguity variables have positive coefficients. This indicates that if the dispute is fought over territorial – as opposed to non-territorial – issues, the likelihood that a proto- or enduring rivalry will develop increases. This result is consistent with the arguments made in the literature (e.g. Hensel, 1996a; 1996b), stating that territorial conflicts are more likely to be protracted than are conflicts fought over other issues such as economic policy or regime characteristics. Territorial contiguity also has a positive effect. Hence, if the dispute takes place between contiguous states, these two states are more likely to develop a proto-or enduring rivalry than if the dispute took place between countries without a common border. These findings are broadly consistent with the research by Bremer (1992) and Gochman (1991) who show that most international conflict takes place between contiguous states (see also Vasquez, 1995). Independently of the issue the countries fight over, the ease by which – and even the possibility that – they can confront one another plays an important role in the development of a rivalry.

Beside testing for the independent impacts of territorial issues and contiguity, we advance on the Stinnett and Diehl (1999) study by considering the *joint* impact of these two factors. Recall that we noted above that most territorial disputes occur between states that share a common border (see Huth, 1996b). Countries that are far apart are unlikely to disagree over the ownership of a piece of land; colonial possessions are, of course, an important exception to this pattern. Therefore, contiguity may form somewhat of weak necessary condition for a territorial dispute and one should also consider the interactive effect between territory-as-an-issue and territory-as-opportunity.

Accordingly, we construct an interactive term that represents those disputing countries that are both contiguous *and* fight with one another over territory. We expect that the interaction should have a positive and even greater impact on rivalry development than either individual component itself. Unfortunately, the interaction is highly correlated with both territorial dispute ($r = .61$) and contiguity ($r = .53$), so we cannot include it along with these two variables in a single statistical model. Instead, we include only the interaction in Model 2 (Table 6). As expected, the interaction is significant and positive. This finding suggests that neighboring states fighting over land are at a greater risk of prolonging their dispute than non-contiguous countries fighting over land, contiguous countries fighting over non-territorial issues, or non-contiguous countries fighting over non-territorial issues.

Encouraged by the finding for the territory-contiguity interaction, we consider the variables' marginal effects, presented in Table 7. We estimate the base probability that a particular type of rivalry (i.e. isolated, proto-, or enduring) develops by setting all variables to their mean or modal values. We then change the value of a single variable to observe its impact on the probability of ending up in a particular rivalry type and report the percentage of change in the table. Of special interest are the differences in marginal effects' magnitudes, between the territory-related and control variables.

(Table 7 about here)

As the results for Model 1 in Table 7 show, the effects of territorial dispute and contiguity are generally modest. Contiguity has the second largest effect, but one should also note that territorial dispute and most of the control variables exhibit almost the same changes in the probability that a certain type of rivalry develops (generally less than 10% for proto-rivalry development and less than 5% for enduring rivalry development). This may not be surprising, given that becoming a proto-rivalry is a relatively low probability event and becoming an enduring rivalry is quite rare (only about 5% of all rivalries). The variable with the greatest effect is the dispute participants' major power status. Overall though, one cannot say that geography has a primary or even dramatic impact on rivalry development. Somewhat in contrast, the interaction between territorial dispute and contiguity produces a more sizable effect (Table 7, Model 2). The magnitude of the interaction's effect is overshadowed only by the impact of the major power status variable. In comparison, the rest of the control variables lag behind.

We should note that part of geography's impact is muted in these analyses. Geographic proximity and territorial issues significantly influence the probability of a first dispute arising, and hence the greatest marginal effects are those with respect to isolated rivalries (the first two disputes in the rivalry sequence). After the creation of an isolated rivalry, the subsequent impact of geography on rivalry evolution is less, although generally comparable to other influences with the exception of major power status.

Average Rivalry Severity

Finally, we assess the impact of territory-related factors on average rivalry severity. In Table 8, we compare the relative importance of territorial issues and contiguity and also add controls that may account for varying degrees of rivalry severity. We expect a positive impact of all the controls on average rivalry severity, with the exception of dyadic democracy whose conflict-mollifying effect has been well established in the literature.

(Table 8 about here)

Consistent with our earlier analysis, we find that the strength of the territorial dimension significantly increases the average severity of proto- and enduring rivalries. In contrast, even though the

effect of contiguity runs in the expected direction, the associated coefficient is only weakly significant. All of our control variables have the anticipated directions of impact, but only the relative power and regime type indicators pass the threshold of statistical significance. In the same table, we also gauge the relative influences of the variables. The greatest positive impact on severity comes from the strength of the territorial dimension variable. As we move away from non-territorial to predominantly territorial rivalries, the average severity score increases by 20 points. The finding confirms Hensel's (1996a) and Senese's (1996) arguments about the severity of conflicts over land. An effect similar in magnitude to the impact of territorial dimension, but opposite in direction is produced by the dyadic democracy coefficient. Importantly, this means that the pacifying effects of democracy can be offset by the presence of territorial issues in a rivalry. In contrast, contiguity has a comparatively small effect on severity, which is comparable in size to the effects produced by the insignificant control variables and overshadowed by the impact of relative power.

Comparing the results from Tables 7 and 8, we find that conflicts over territory increase both the chances of rivalry development and its severity. The finding is consistent with the above arguments stating that territorial-control issues are both hard to resolve and highly salient. The difficulty by which workable solutions can be found and implemented suggest that territorial-control problems lead to repeated rounds of violence, that is to rivalries. The salience of these problems imply that countries involved in territorial disputes are more willing to expend greater amounts of their material and human resources on related conflicts than for conflicts over other issues; this strategy in turn, results in higher-severity conflicts. Nevertheless, the results for contiguity were not as consistent across different analyses. Proximity does facilitate the repeated rounds of violence by enabling (weak) countries to easily engage one another. Therefore, rivalries are more likely to develop between neighbors than between far-apart countries. (Recall that the likelihood of rivalry development is even greater if the neighbors are engaged in a territorial dispute.) Yet closeness, our results show, has little to do with the severity of the resulting rivalry. The ease by which troops and military equipment can be brought to the battlefield does not substantially impact the decision to actually bring them there. The issue that is driving the conflict – territorial control in our case – is closer related to this decision. This obviously suggests that the intensity of a conflict is driven more by the *willingness* of states to press the fight than merely by their *opportunity* or ability (Most and Starr, 1989) to do so, although clearly geographic factors condition both.

Conclusion

In this study, we show that our understanding of rivalries can be enhanced by a greater consideration of the connection between this phenomenon and geographic concerns. More specifically, we sought to understand the impact of geography – both as a contentious issue and as a facilitator of

conflict – on rivalry. Prior works tell us that these factors are important in individual militarized conflicts, but until now we did not know whether they also impact patterns of recurring conflicts. Although we find that both territorial disputes and contiguity matter little for rivalries in general, we do demonstrate that both factors' importance grows as we consider the more serious types of rivalries. In other words, most rivalries are not fought over territory or between neighbors, but a substantial portion of proto- and enduring rivalries are conditioned by territorial disputes and proximity.

Beyond showing how important territorial concerns are in rivalries, we also investigate whether disputes over land and contiguity have an impact on conflict density, rivalry development, and rivalry severity. We show that both territory as an issue and contiguity increase the frequency of conflict between enduring rivals, but not necessarily between proto-rivals. We suspect that the inconsistency in the finding is an artifact of the rivalry definition, which includes the time dimension as one its components. Regarding rivalry development, we demonstrate the importance of both disputes over territory and proximity, as well as of the combination of both factors. Whether a conflict takes place over territory and/or whether the disputants are neighbors directly influence the chances that the conflict in question is the first of many disputes to come. Finally, we show that territorial disputes play an important role in boosting a rivalry's average severity. Rivalry severity depends on the underlying issue the rivals disagree over. If the issue involves territorial control, the rivalry will be more severe than if the issue in question was different (e.g. economic policy, ideology, etc.). Opportunity to fight (i.e. proximity), in contrast, has a limited effect, at best, on a rivalry's average severity.

We close by identifying several areas on which, in our opinion, future research efforts should focus. The first item on a future research agenda involves developing better theoretical explanations for the link between territorial concerns and rivalries. Heretofore, explanations have been largely rudimentary and borrowed from the general literature on international conflict, which assumes an independence of conflict events over time. Scholars should explore whether there are theoretical models concerning geography that are unique to the rivalry phenomenon; focus would fall largely on the recurring character of conflict in that context and not merely on the incidence of individual disputes. Specifically, how and when do geographic factors make militarized conflicts repeat?

Second, prior enduring rivalry research (Diehl and Goertz, 2000; Goertz and Diehl, 2000) has shown that rivalries tend to have a relatively immutable patterns of rivalry interaction over time. Conflict management efforts (e.g., mediation) have thus produced temporary, but few long-term, benefits. Given that territorial disagreements are hard to settle, is the underlying territorial issue to blame for the arguable failure of rivalry management? A flip side of this question would be to investigate whether conflict management works better for non-territorial rivalries. In the end, perhaps different conflict management tools may be necessary to deal with rivalries based on whether they are territorial or not. Thus, we

recommend the marrying of the recent concern with conflict management issues in the scholarly literature with those geographic concerns described here. It may be that territory-based conflict follow different processes and therefore need specific models for us to understand them.

The third, and related, suggestion concerns the role of territorial changes between rivals. Repeated conflicts over territory imply that there is dissatisfaction over the distribution of the land between the rivals. Do changes in the distribution of territory alter rivalry dynamics – that is impact its continuation, severity, and termination? A confirmatory answer to this question would imply that future rivalry research should pay attention to changes over time – such as territorial division in this case – driving the rivalry. Moreover, future research would need to address territorial changes' impact on subsequent conflict, as little is known about this phenomenon at this time (for an exception to this statement, see Tir, 1999). In addition, answering this question provides clues as to whether territorial enduring rivalries can be managed (or even resolved) by the means of territorial changes. If territorial changes help, policy makers should make an effort to induce territorial changes between territorial enduring rivals. Of course, geographic contiguity is less malleable with respect to territorial changes, but border configurations can and do change, and indeed border effects can be altered by technological developments or purposive political actions (e.g., demilitarized zones) even if there is no change in territorial control.

Finally, our analysis has been confined to two different effects of geography on rivalries: issue and proximity effects. Future consideration of geography and rivalries might expand that focus to include spatial effects. Specifically, how does conflict diffusion from neighboring or regional states affect rivalry development and severity? Diehl and Goertz (2000) did not find a significant impact from the linkage of two rivalries by geographic proximity, but theirs was the first, and a very preliminary, study that addressed this concern.

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Table 1: Territorial Dimensions of Rivalries

		All Rivalries	Isolated Rivalries	Proto-Rivalries	Enduring Rivalries
Rivalry as the Unit of Analysis	Rivalries with No Territorial MIDs	830 (71.2%)	692 (78.6%)	126 (56.5%)	12 (19.0%)
	Rivalries with Territorial MIDs	336 (28.8%)	188 (21.4%)	97 (43.5%)	51 (81.0%)
	Total Rivalries	1166	880	223	63
MID as the Unit of Analysis	Non-territorial MIDs	2219 (74.4%)	875 (80.9%)	764 (78.9%)	580 (62.1%)
	Territorial MIDs	765 (25.6%)	207 (19.1%)	204 (21.1%)	354 (37.9%)
	Total MIDs	2984	1082	968	934

Note: MID = Militarized Interstate Dispute (see Gochman and Maoz, 1984; Jones Bremer, and Singer, 1996).

Table 2: Breakdown of Enduring and Proto-Rivalries by the Presence of Territorial Conflict

	Percent Territorial MIDs within Each Rivalry	Number of Enduring Rivalries	Number of Proto-Rivalries	Number of Enduring and Proto-Rivalries
Non-territorial Rivalries	0	12 (19.0%)	126 (56.5%)	138 (48.2%)
Partly Territorial Rivalries	Between 0 and 50 (exclusive)	34 (54.0%)	60 (26.9%)	94 (32.9%)
Predominantly Territorial Rivalries	50 and Above	17 (27.0%)	37 (16.6%)	54 (18.9%)
Total	N.A.	63	223	286

Note: MID = Militarized Interstate Dispute (see Gochman and Maoz, 1984; Jones Bremer, and Singer, 1996).

Table 3: Impact of Territorial Issues in Proto- and Enduring Rivalries

Part A: Impact on Mean Dispute Severity (200-Point Scale)		
	Proto- and Enduring Rivalries	Statistics (ANOVA test)
Non-Territorial Rivalries	71.62 (33.31)	N = 286 F = 11.71 (2 d.f.) p = .00
Partly Territorial Rivalries	83.03 (25.78)	
Predominantly Territorial Rivalries	94.34 (29.86)	
Part B: Impact on Mean Dispute Frequency (per Year)		
	Proto-Rivalries	Enduring Rivalries
Non-Territorial Rivalries	.80 (.79)	.28 (.08)
Partly Territorial Rivalries	.66 (.54)	.38 (.23)
Predominantly Territorial Rivalries	.63 (.49)	.49 (.27)
Statistics (ANOVA Tests)	N = 223 F = 1.27 (2 d.f.) p = .28	N = 63 F = 3.13 (2 d.f.) p = .05

Note: Standard deviations are given in parentheses.

Table 4: The Relationship Between Contiguity and Rivalry Types

	All Rivalries	Isolated Rivalries	Proto-Rivalries	Enduring Rivalries
Non-Contiguous Rivalries	835 (71.9%)	674 (76.6%)	135 (61.4%)	26 (41.9%)
Contiguous Rivalries	327 (28.1%)	206 (23.4%)	85 (38.6%)	36 (58.1%)
Total Rivalries	1162	880	220	62

Table 5: The Impact of Contiguity in Proto- and Enduring Rivalries

Part A: Impact on Mean Dispute Severity (200-Point Scale)		
	Proto- and Enduring Rivalries	Statistics (Difference of Means Test)
Non-Contiguous Rivalries	Mean = 74.05 (33.78)	N = 282 F = 10.89 (1 d.f.) p = .00
Contiguous Rivalries	86.29 (26.32)	
Part B: Impact on Mean Dispute Frequency (per Year)		
	Proto-Rivalries	Enduring Rivalries
Non-Contiguous Rivalries	.77 (.77)	.38 (.26)
Contiguous Rivalries	.67 (.55)	.40 (.22)
Statistics (Difference of Means Test)	N = 220 F = 1.04 (1 d.f.) p = .31	N = 62 F = .06 (1 d.f.) p = .82

Note: Standard deviations are given in parentheses. Contiguity is defined as contiguity by land. Four rivalries whose contiguity status changes during the life of the rivalry – due to territorial changes – were excluded from the analyses.

Table 6: Ordered Probit Analyses of Rivalry Development

Variable	Model 1	Model 2
Territorial Dispute	.249*** (.106)	N.A.
Contiguity	.294*** (.098)	N.A.
Territory * Contiguity	N.A.	.500*** (.140)

Stalemate Outcome	.283*** (.090)	.300*** (.090)
Dispute Joiner	-.293*** (.100)	-.296*** (.098)
Both Major Powers	.983*** (.168)	.980*** (.169)
Recent Independence	.277*** (.109)	.310*** (.108)
Dyadic Democracy	-.027*** (.010)	-.029*** (.010)
Cut 1	.844	.756
Cut 2	1.949	1.858
N	960	960
Log Likelihood	-614.857	-617.380
Chi-Squared (d.f.)	83.83*** (7)	78.78*** (6)

Note: Standard errors are given in parentheses. All significance levels are one tailed. ***p < .01; **p < .05; *p < .10.

Table 7: Marginal Effects on Rivalry Type

Variable: Change	Model 1			Model 2		
	Isolated	Proto	Enduring	Isolated	Proto	Enduring
Territorial Dispute: No to Yes	-8%	+6%	+2%	N.A.	N.A.	N.A.
Contiguity: No to Yes	-10%	+7%	+3%	N.A.	N.A.	N.A.
Territory * Contiguity: No to Yes	N.A.	N.A.	N.A.	-18%	+11%	+7%
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Stalemate Outcome: Yes to No	+8%	-6%	-2%	+9%	-7%	-2%
Dispute Joiner: No to Yes	+8%	-6%	-2%	+9%	-7%	-2%
Both Major Powers: No to Yes	-37%	+20%	+17%	-37%	+18%	+19%
Recent Independence: No to Yes	-9%	+6%	+3%	-11%	+7%	+4%
Democracy: Mean to Mean + 2SD	+7%	-5%	-2%	+8%	-6%	-2%
Baseline	76%	20%	4%	73%	23%	4%

Note: The reported values represent the changes in the probability of a certain rivalry type's occurrence. The baseline values are calculated by setting all the variables to their mean or modal values.

Table 8: OLS Estimates of Average Rivalry Severity and Marginal Effects

Variable	Coefficient (Standard Error)	Change in Severity
Strength of the Territorial Dimension	9.889*** (2.483)	+20
Contiguity	5.781* (4.059)	+6
.....		
Balance of Forces at the Rivalry's Midpoint	13.040** (6.800)	+9
Both Major Powers	5.650 (6.613)	+6
Recent Independence	4.782 (4.398)	+5
Dyadic Democracy	-20.478** (12.431)	-20
Constant	64.922*** (3.093)	N.A.
N	281	N.A.
F (d.f.)	6.48*** (6)	

Note: All significance levels are one tailed. ***p < .01; **p < .05; *p < .10. The baseline severity score – calculated when all variables are at their mean or model values – is 69. The change in severity score is calculated by changing the value of the variable of interest to its maximum.